

EVALUATION OF THE ST LOUIS MOTORIST ASSIST PROGRAM



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BACKGROUND

- The purpose is to promote freeway safety and expedite the flow of high volume traffic by assisting disabled motorists, clearing roadways of stalled vehicles and debris, and assisting emergency personnel at accident locations.
- The Motorist Assist Program, sponsored by the Missouri Department of Transportation (MoDOT), began in 1993 with just 4 vehicles. Today the program has over 24 operators patrolling 160 centerline miles of freeway seven days a week (excluding some major holidays).



TYPES OF SERVICES PROVIDED

- Give stranded motorists a ride to safety.
- Clear traffic lanes of debris and stalled vehicles.
- Change flat tires and dispense fluids, coolant, and gasoline.
- Provide traffic control at accident and incident scenes.
- Make minor temporary repairs to disabled vehicles.
- Establish initial containment of hazardous material spills.
- Provide initial first aid to the injured at accident scenes.
- Assist Police with the removal of abandoned vehicles on shoulder.

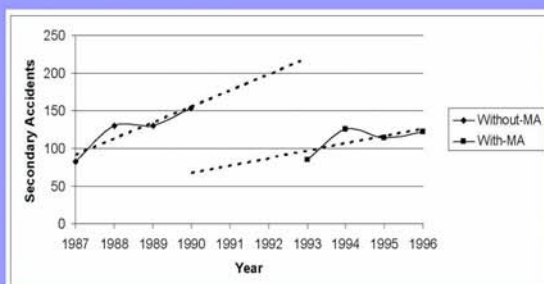


Figure 3: A plot of secondary accidents on I-70 from 1987 to 1996. The rate of secondary accidents decreases in the four years following the debut of MA in 1993.

ABSTRACT

- The evaluation focused on the safety and efficiency impacts of the St. Louis Motorist Assist Program (MA).
- Efficiency impacts were estimated based on a sample of about 5500 incidents extracted from 2002 MA operator logs. A comparison of incident duration was made between assistance by MA and assistance without MA. Most incidents were cleared in less time with MA, and the corresponding traffic delay savings was estimated.
- Safety impacts were centered on an analysis of freeway accident records. Two trends of annual secondary accidents were plotted: one for four years prior to MA and one for four years after MA began. Expanding the two trends to the year 2002, fewer secondary accidents occurred with MA in service.

Table 1: 2002 MA Assist Totals By Category

CHANGE TIRE	DISPENSE FLUID	DEBRIS	HAZMAT SPILL	LOST MOTORIST	ABANDONED VEHICLE	MECHANICAL	ACCIDENT	STALLED DUE TO WEATHER	OTHER
6486	2471	1963	21	592	12863	9054	2259	28	1478



Date	Assist Code	Dir	Route	Mile Marker	Assist Start Time	Assist Finish Time	Incident Duration (min)	Pol Y/N	In-Lane
4/9/2002	6L	E	40	10.5	4:38 AM	4:39 AM	0:01	N	
4/22/2002	1B	E	40	12	6:42 PM	6:56 PM	0:14	N	
4/16/2002	750C	E	40	12.25	6:16 AM	6:41 AM	0:25	N	
4/11/2002	1A	E	40	13	4:57 PM	5:08 PM	0:11	N	
4/25/2002	7P	E	40	13	7:23 AM	7:36 AM	0:13	N	
4/30/2002	1B	E	40	14	2:26 PM	2:33 PM	0:07	N	
4/23/2002	3M	E	40	14	9:35 AM	9:36 AM	0:01	N	1
4/9/2002	7S	E	40	14	9:49 AM	9:51 AM	0:02	N	
4/25/2002	7S	E	40	14	3:23 PM	3:29 PM	0:06	N	
4/9/2002	3M	E	40	16	7:30 AM	7:40 AM	0:10	N	10
4/25/2002	7O	E	40	17	5:45 AM	5:52 AM	0:07	N	
4/4/2002	2G	E	40	19	9:00 AM	9:02 AM	0:02	N	
4/18/2002	3M	E	40	19	8:10 AM	8:13 AM	0:03	Y	3
4/30/2002	6L	E	40	19	4:35 PM	4:38 PM	0:03	N	
4/9/2002	7MVZ	E	40	19	7:00 AM	8:02 AM	1:02	N	62
4/18/2002	750C	E	40	19	1:30 PM	1:44 PM	0:14	N	
4/18/2002	6L	E	40	19	8:13 AM	8:22 AM	0:09	Y	
4/25/2002	7S	E	40	20.25	5:09 PM	5:11 PM	0:02	N	
4/9/2002	6L	E	40	20.5	4:53 AM	4:54 AM	0:01	N	
4/16/2002	7O	E	40	20.5	6:53 AM	7:08 AM	0:15	N	
4/25/2002	7S	E	40	20.75	5:13 PM	5:15 PM	0:02	N	
4/11/2002	3M	E	40	21	3:09 PM	3:10 PM	0:01	N	1
4/4/2002	7MOT	E	40	21.25	7:15 AM	7:22 AM	0:07	N	7
4/11/2002	1B	E	40	22	2:53 PM	2:58 PM	0:05	N	
4/11/2002	1B	E	40	22	7:38 PM	7:48 PM	0:10	N	
4/16/2002	1B	E	40	22	3:21 PM	3:31 PM	0:10	N	
4/9/2002	2G	E	40	22	2:38 PM	2:31 PM	0:03	N	
4/2/2002	6L	E	40	22	5:35 AM	5:36 AM	0:01	N	
4/18/2002	6L	E	40	22	1:04 PM	1:05 PM	0:01	N	
4/9/2002	7PT	E	40	22	10:12 AM	10:23 AM	0:11	N	
4/16/2002	6VM	E	40	22	8:41 AM	9:16 AM	0:35	N	
4/23/2002	1B	E	40	22.5	9:46 AM	9:57 AM	0:11	Y	2

Figure 1: Sample MA Operator Log Data

MoDOT Motorist Assist Survey
Your Opinion is Our Reward

How would you rate our following services?

	Excellent	Good	Fair	Poor
Driver Courtesy				
Effectiveness of Assist				

How long did you wait before Motorist Assist Arrived? 10 (Minutes)

Date of Assistance: 3-18-01

Do you think this service should continue? YES

Added Comments:

Very helpful and I want to see this service continue. My wife had trouble about a month ago and she had a good experience with this service. This is a good use of our Tax Dollars.

Name: [Signature]

May We Contact You? YES If yes, please provide your phone number and/or address.

Figure 2. Sample Motorist Survey Response

CONCLUSIONS

- Non-quantifiable benefits include providing real-time traffic information to MoDOT, savings to fuel consumption and police manpower, and reducing emissions.
- An estimated 188,677 vehicle-hours of delay were reduced on all freeways in 2002.
- An estimated 456 secondary accidents were reduced on I-70 & I-270 in 2002.
- The annual value of quantified benefits is \$16.4 million or \$11 for every \$1 spent.